

DATA SHEET



EX1200-7600

5 W PROGRAMMABLE RESISTOR LADDER

FEATURES

- Ideal for UUT loading or simulation
- Wide resistance range from 0.5 Ω to 1.5 M Ω
- 0.1 Ω step size
- Over-voltage, over-current, and over-temperature sensing protects unit under test
- External voltage and current sense for monitoring
- IVI drivers



RELIABLE DATA FIRST TIME EVERY TIME

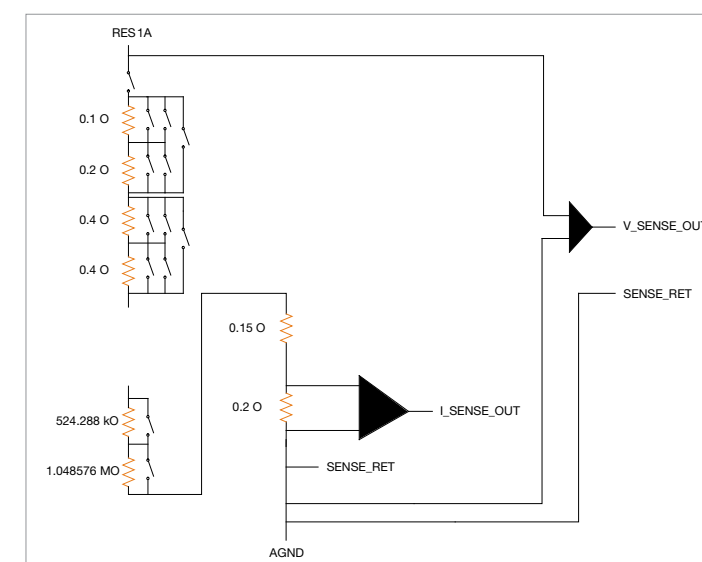
OVERVIEW

The EX1200-7600 is a single output, programmable resistor ladder. It is designed for applications such as RTD or other sensor simulation, process control, ATE calibration, and device under test loading. It contains internal, high-precision 5 W power resistors that are switched in and out via mechanical relays. The EX1200-7600 is capable of producing any resistance value between 0.5 Ω to 1,500,000 Ω and can be adjusted in 0.1 Ω increments via external commands. It is designed for terminal voltages from 0 to 200 V dc and for currents up to 0.5 A. The EX1200-7600 is part of the EX1200 family of products and can be mixed and matched with other EX1200 series modules to configure high-density measurement and switching systems.

FAULT SENSING

After power up, reset or a fault condition, all relays on this module are open, removing the load from the device under test. A fault condition is the result of exceeding the maximum current, maximum voltage, or maximum temperature for the module. Additionally, a voltage sense out signal provides a scaled indication of the voltage across the resistance, and a current sense out signal provides a scaled indication of the current through the circuit, both of which can be monitored by an external measurement device (such as an EX1200 series DMM). This can be used to force all relays open if a set voltage or current is exceeded thereby protecting the unit under test.

BLOCK DIAGRAM



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General Specifications

MODEL TYPE	Programmable resistor load
CHANNELS	1
SWITCHING TIME	< 5 ms
RATED SWITCH OPERATIONS	
Mechanical	5×10^6
Electrical	1×10^5 (full load)
OVER TEMPERATURE PROTECTION	
PCB Surface Temperature	102 °C (215.6 °F)
MAXIMUM SWITCHING VOLTAGE	200 V AC rms
MAXIMUM SWITCHING CURRENT	0.5 A
MAXIMUM SWITCHING/CARRY POWER	5 W
POWER CONSUMPTION	
3.3 V	0.129 A
5 V	0.0041 A (add 24 mA for each relay closure)
24 V	0.2 A (maximum value)
VOLTAGE OUTPUT RANGE/GAIN	40:1 $\pm 1\%$ full-scale
CURRENT OUTPUT RANGE/GAIN	100:1 $\pm 1\%$ full-scale
SETTING ACCURACY	
0.5 – 60.0 Ω	$\pm 0.15 \Omega$
60.1 – 1,499,999 Ω	$\pm 0.25\%$ of programmed value
1,499,999.1 Ω – 2,097,152.6 Ω	Not specified
MINIMUM INCREMENT (RESOLUTION)	0.1 Ω
CONNECTOR TYPE	15-pin

Ordering Information

EX1200-7600 5 W programmable resistor ladder

ACCESSORIES AND TOOLS

27-0076-015 Mating connector

27-0086-015 Connector backshell